

folding/foldable object. The T-link hinge may be used for other applications as well and is useful in its own right.

[0023] The T-link hinge 122, FIGS. 1 thru 3, according to the first embodiment of the present invention comprises a link portion 122 having a T-shaped cross-section comprising a top region 121 and a bottom region 123. The top region 121 has a width greater than a width of the bottom region 123. The link portion 122 includes first and second ends 125 and 127.

[0024] The link portion 122 further comprises first and second thru holes 114 and 116 formed in the bottom region 123 of the link portion 122 adjacent each the respective first and second ends 125, 127 of the link portion 122.

[0025] The T-link hinge portion 122 is used to connect a first member 112 and a second member 113. Each of the first and second members 112, 113 include a T-shaped link portion receiving region 129 comprising a top region 129a and a bottom region 129b. The top region 129a has a width greater than a width of the bottom region 129b to accommodate the wider width of the top portion 121 of the link hinge portion 122.

[0026] Each of the first and second members 112, 113 include thru holes 106, 108 extending at least partially into the bottom region 123b of each of the T-shaped link portion receiving regions 123 of the first and second members 112, 113, wherein in an assembled configuration of the link portion 122 and the first and second members 112, 113, the thru holes 106, 108 formed in the first and second members 112, 113 axially align with the pair of thru holes 114, 116 in the link portion 122, and are connected via the thru holes 106, 108 utilizing first and second pins (not shown in this drawing but explained in connection with FIG. 11A herein).

[0027] As shown in FIGS. 4 through 12, another exemplary embodiment of T-link hinge 122a provides a flush mounted hinge between two adjoining members 124, 126, which allows the two adjoining members 124, 126 to fold flat directly onto themselves as shown in FIG. 7. This feature and advantage is provided utilizing flush mounted top hinge members 132a and 132b shown in FIGS. 8 and 10 and flush mounted bottom screws 140 as shown in FIGS. 9 and 10.

[0028] In this embodiment, the T-link hinge 122a includes first and second hinge top mount portions 132a, 132b, (see FIGS. 11 and 12) coupled together by a link portion 136. The first and second hinge top mount portions 132a, 132b fit into grooves 137 provided in the two adjoining members 124, 126 to be hingeably held together (for example two table top portions). A plurality of recessed screws 140 serve to keep the two adjoining members 124, 126 coupled together by use of the link portion 136, all securely fastened to the two adjoining members 124, 126. This is further illustrated in FIGS. 12A thru 12C.

[0029] The T-link hinge 122a in the second embodiment shown in FIGS. 4-12 comprise a link portion 136 having a T-shaped cross-section comprising a top region 121 and a bottom region 123. The top region 121 has a width greater than a width of the bottom region 123. The link portion 136 includes first and second ends 125 and 127.

[0030] The link portion 136 further comprises first and second thru holes 137a and 137b formed in the bottom region 123 of the link portion 136 adjacent each the respective first and second ends 125, 127 of the link portion 136.

[0031] The T-link hinge portion 136 is used to hingeably connect a first member 124 and a second member 126 utilizing the flush mounted first and second hinge top mount

portions 132a, 132b. Each of the first and second members 124, 126 include a T-shaped link portion receiving region 129 comprising a top region 129a and a bottom region 129b. The top region 129a has a width greater than a width of the bottom region 129b to accommodate the wider width of the top portion 121 of the link hinge portion 136.

[0032] Each of the first and second hinge top mount portions 132a, 132b include thru holes 133 extending at least partially into the bottom region 135 of each of the T-shaped link portion receiving regions 129 of the first and second hinge top mount portions 132a, 132b. Wherein in an assembled configuration of the link portion 136 and the first and second hinge top mount portions 132a, 132b, the thru holes 133 formed in the bottom region 135 of each of the T-shaped link portion receiving regions 129 axially align with the pair of thru holes 137a, 137b in the link portion 136, and are connected via the thru holes utilizing first and second pins 139.

[0033] The first hinge top mount portion 132a is configured for being pivotally connected to a first end 125 of the link portion 136, and the second hinge top mount portion 132b is configured for being pivotally connected to the second end 123 of the link portion 136. The first and second hinge top mount portions 132a, 132b are configured to be fastened to first and second members 124, 126 for hingeably connecting the first and second members 124, 126.

[0034] The top flange portions 133a, 133b include a plurality of protrusions 141 on the bottom region of the top flange portions 133a, 133b. Holes 154 in the first and second members 124, 126 allow low-profile screws 140 to pass through the first and second members 124, 126 and thread into the protrusions 141 on the bottom region of the first and second top flange portions 133a, 133b. The low profile screws mount flush with a bottom region or surface 147 of the first and second members 124, 126.

[0035] The first and second members 124, 126 comprise a top flange portion mounting/receiving region recess 131a, 131b and a plurality of thru holes 143 having a diameter large enough to accommodate and receive the protrusions 141 on the bottom region of the top flange portions 133a, 133b. Top flange portions 133a, 133b are flush mounted in the recess 129 provided in each of the first and second members 124, 126 to be hingeably connected.

[0036] Accordingly, the T-link hinge according to one feature of the invention may be utilized along with a foldable table or with any other product that requires a foldable hinge having a flush top and bottom surface.

[0037] Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention, which is not to be limited except by the allowed claims and their legal equivalents.

The invention claimed is:

1. (canceled)
2. A T-link hinge for hingeably connecting first and second members, said T-link hinge comprising:
 - a link portion having a T-shaped cross-section comprising a top region and a bottom region, said top region having a width greater than a width of said bottom region, said link portion having first and second ends;
 - wherein said link portion comprises first and second thru holes formed in said bottom region of said link portion adjacent each said respective first and second ends of said link portion;